UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,019	03/02/2004	Tatsuya Yasunaga	249210US0	3568

22850 7590 11/18/2008

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
FISCHER, JUSTIN R	

ART UNIT	PAPER NUMBER
1791	

NOTIFICATION DATE	DELIVERY MODE
11/18/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS

AND INTERFERENCES

Ex parte TATSUYA YASUNAGA,
HISASHI MITAMURA, and
TAKENORI NAKAYAMA

Appeal 2008-2177
Application 10/790,019
Technology Center 1700

Oral Hearing Held: May 22, 2008

Before CHARLES F. WARREN, PETER F. KRATZ, and
CATHERINE Q. TIMM, Administrative Patent Judges

ON BEHALF OF THE APPELLANT:

HARRIS A. PITLICK, ESQUIRE
Oblon Spivak
1940 Duke Street
Alexandria, Virginia 22314
(703) 413-3000
(703) 413-2220 - fax
hpitlick@oblon.com

The above-entitled matter came on for hearing on Thursday, May 22, 2008, commencing at 9:18 a.m., at The U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia, before Janice A. Salas, Notary Registration No. 264765, Notary Public.

THE CLERK: Calendar number 43, Mr. Pitlick.

JUDGE WARREN: Hello, Mr. Pitlick. Did you enjoy your recess?

MR. PITLICK: It's too short.

JUDGE WARREN: You can proceed when ready, sir.

MR. PITLICK: What we're claiming here is a composite material of rubber bonded to brass or brass plate and substrate, et cetera.

What the applicants have discovered here is that the presence of what we call needle-like copper CU-S, copper-sulfur based reaction products, formed at the interface between the brass and the rubber have an effect on the bonding strength of the brass to the rubber that these needle-like reaction products have to have a particular dimension and that they are obtained with a certain amount of pre -- I should say preheating at a certain temperature range before vulcanization.

And certainly, we maintain all the arguments we've made in our appeal brief and reply brief, but after receiving a certainly better copy of the main reference Takayama, I think our claims are even, this is possible, more patentable.

I just want to talk about Takayama. Takeyama basically is concerned with uneven vulcanization of, for example, tires. They discovered that because certain parts of the tire vulcanize in effect less than other parts, what Takayama does is Takayama preheats that part of the tire

that normally takes longer to vulcanize.

So by preheating that part of the tire that takes longer, which is -- they refer to it as the bead and the thread, they're able to get a more even vulcanization in less time, and they do disclose a preheating temperature of 80-120. So that is really the only -- the only commonality between the claimed invention here and Takeyama.

Again, we've shown that the preheating and the presence of these needle-like products have an effect on bonding strength between the metal and the rubber. Takayama isn't even concerned about that kind of thing. As I said, he's only concerned with even vulcanization, and -- well, even vulcanization.

So clearly, there's no prima facie case at all, and we've shown with our comparative data that you actually have to be within a certain range of these -- a number of these needle-like products because if you're too low or too high, your bonding strength suffers so --

JUDGE WARREN: But if you -- if you carry out the preheat that Takayama teaches and then you vulcanize, wouldn't you fall within that range?

MR. PITLICK: Well, as we've shown, it's not simply a matter of heat treating within that temperature. It's also -- preheating. It's also a matter of the time in which the pretreatment is carried out.

JUDGE WARREN: But your claim 1 doesn't really have a time limitation.

MR. PITLICK: But our claim 1 requires that the reaction products be within a certain range and have a certain dimension, and you would never know that from the reference at all.

JUDGE WARREN: Well, I know. That's true.

MR. PITLICK: And also, the reference, now they talk about a wire. Now, we've argued that in the reference it appears that the wire is basically used to heat the rubber. It's not even clear to us that the wire that they're talking about is the metal that we're talking about in our claims.

JUDGE WARREN: Counselor, if you refer to figure 3 of the -- of Takayama --

MR. PITLICK: Yes.

JUDGE WARREN: -- in the area around the bead there, wouldn't you have wire in that area normally?

MR. PITLICK: You may or you may not. Again, I'm not sure if we're talking about the same wire that we have in terms of our brass material.

JUDGE WARREN: I believe the examiner raised the issue that Shemenski, for example, shows that it was -- or Shemenski provides evidence that it was known in the art to use brass-coated wire in tires where the wire was essentially bonded to the rubber.

MR. PITLICK: Oh, that's obviously true. We don't deny that. You know, that's really something that we're starting from. I mean, what we're saying is when you have that, you can maximize the bond between this brass -- and it doesn't have to be a wire, but this brass material on the rubber by doing what we've done.

I mean, our case does not hinge on whether the wire in Takayama is the same as art brass or not. That's just another argument. The main argument is the argument I began with is the fact that we've discovered that if you want these needle-like products in there, they have to

have a certain dimension. They have to be within a certain range.

And the way you get them is by controlling a combination of preheating temperature, and also, it's not simply preheating temperature, but obviously the higher the temperature the shorter the time. That kind of thing.

JUDGE WARREN: So one of ordinary skill in the art with a tire that person wishes to construct using brass-coated wire, according to Shemenski, and finds that he can construct the tire -- he or she can construct the tire better by following the teachings of Takayama, wouldn't that person do the preheat before the vulcanization, and wouldn't that routinely -- and routinely doing that wouldn't that give you the same reaction product as the products that you've specified in claim 1.

MR. PITLICK: You might get a copper-sulfur reaction product, but you may not necessarily get the number of products that we have. You might get more. You might get less. You might get them having different sizes. And also, Takayama is only preheating a small part of the tire. Not the entire tire.

JUDGE WARREN: I don't see where your claim requires heating the entire tire.

MR. PITLICK: That's true. It doesn't.

JUDGE WARREN: And it would seem that a product–by-process claim, which obviously this is, would have to recite all the necessary steps to obtain the product described in the claim.

MR. PITLICK: Well, I think it actually cites more steps than are needed. I think if we simply said we had -- we did not have the preheating step recited in the claim, I think that would be fine.

The important thing is that this product has to have this 1 to 50 needle-like copper-sulfur based reaction products having a certain length and width, and clearly, you would never get that from the reference.

JUDGE WARREN: Well, I -- that is true. The reference does not disclose it, but simply because you've identified the product differently from the reference, wouldn't under In re Skoner and In re Best indicate that perhaps what you're telling us here is nothing more than elucidation of the nature of the product obtained.

MR. PITLICK: No. Because we've shown you in our comparative data that simply operating within a preheat temperature of 80 to 120 doesn't give you necessarily what we have. Our comparative data shows that.

JUDGE WARREN: Where is that, sir? Why don't we review that if you would for us.

MR. PITLICK: Just bear with me.

JUDGE WARREN: Okay.

MR. PITLICK: Well, we talked about it -- we have the table 1 at page 5 of our brief, but that table is excerpted from the specification, and the preheating temperature was 100 degrees centigrade for every one of these examples.

So that's right in the middle of our range and that's the middle -- the range of Takeyama, and you can see that just because you're preheating within the range of the reference, doesn't mean you're going to get our product, so cases like In Re Best don't apply here at all.

JUDGE WARREN: You're looking at the table 1 on page 12 of the specification?

MR. PITLICK: That's correct.

JUDGE WARREN: It would seem that that essentially is a -- is comparative data that's based on the number of the needle-like CU-S based reaction products where the time exceeds 22 to 20 -- where the time is outside of 20 minutes and prior to two minutes; is that correct?

So what's in the middle of the table would necessarily flow from perhaps using Takayama's heat treatment, which is -- which the 100 degree C is right in the middle of Takeyama's range.

MR. PITLICK: Yeah, but Takayama doesn't talk about treatment time at all.

JUDGE WARREN: Well, according to your table, it would appear that if you heated it at least two minutes, which is what your claim 10 calls for, you only get 0.2 needle-like reaction products.

MR. PITLICK: Our claim doesn't call for times.

JUDGE WARREN: It does in claim 10, doesn't it? I believe you've argued that.

MR. PITLICK: Well, obviously, you might not want to preheat for two minutes if you were going to operate at 100 degrees, but, as we've indicated, if you operate at a higher temperature, you can preheat for less.

So as I said, the reference just says preheating. Doesn't talk about time. Has no recognition of the problem we're trying to solve or our solution, and quite frankly, I don't see how one would ever discover what we have based on practicing the reference Takeyama.

The other three references that he relies on basically, as I've

indicated before, you know, we're not the first to discover that you want to bond rubber to a brass material. I mean, that aspect is old and we don't suggest that that's our discovery.

JUDGE TIMM: And how do those other references, how do they discuss how they get the bonding between the rubber and the brass material?

MR. PITLICK: I honestly can't say I recall, but certainly not the way we do. That certainly is clear.

JUDGE TIMM: But it is a known problem in the art.

MR. PITLICK: I don't know that it's a known problem per se. I couldn't say that those skilled in the art were perfectly happy with the kind of bonding that they've gotten previously, but certainly our bonding -- our invention gives you an improved bond, so I couldn't say whether it's a problem, and to the extent it is a problem, we get a better result.

JUDGE WARREN: More questions?

JUDGE TIMM: No more questions.

JUDGE WARREN: Thank you very much, Mr. Pitlick.

Whereupon, the proceedings at 9:31 a.m. were concluded.